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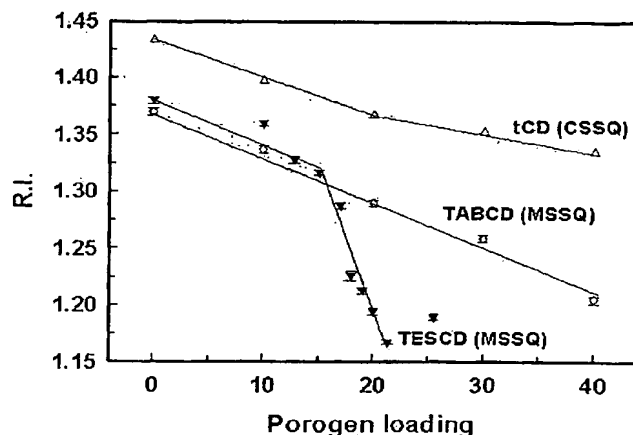
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(54) Title: CYCLODEXTRIN DERIVATIVES AS PORE-FORMING TEMPLATES, AND LOW DIELECTRIC MATERIALS
PREPARED BY USING THE SAME



(57) Abstract: This invention is related to a reactive nanoparticulate cyclodextrin derivative useful as a porogen and a low dielectric matrix, with excellent mechanical properties and uniformly distributed nanopores, manufactured by sol-gel reaction of the above reactive cyclodextrin. Furthermore, this invention also is related to an ultralow dielectric film, with uniformly distributed nanopores, a relatively high porosity of 51%, and a relatively low dielectric constant of 1.6, manufactured by thin-filming of the conventional organic or inorganic silicate precursor by using the above reactive cyclodextrin as a porogen.



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